

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

## PCT

### NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

To:

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LUXEMBOURG

Date of mailing  
(day/month/year)

26.04.2005

Applicant's or agent's file reference

F-12458/PCT SL

#### IMPORTANT NOTIFICATION

International application No.

PCT/IL 03/00309

International filing date (day/month/year)

14.04.2003

Priority date (day/month/year)

15.04.2002

Applicant

EPOS TECHNOLOGIES LIMITED et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international  
preliminary examining authority:



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# PATENT COOPERATION TREATY



## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

|   |  |  |
|---|--|--|
| Applicant's or agent's file reference<br><b>F-12458/PCT</b>   | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416) |  |
| International application No.<br><b>PCT/IL 03/00309</b>   | International filing date ( <i>day/month/year</i> )<br><b>14.04.2003</b>   | Priority date ( <i>day/month/year</i> )<br><b>15.04.2002</b> |
| International Patent Classification (IPC) or both national classification and IPC<br><b>G06K11/00</b> |  |  |
| Applicant<br><b>EPOS TECHNOLOGIES LIMITED et al.</b>  |  |  |

|    |  |
|----|--|
| 1. | This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.   |
| 2. | <p>This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of    sheets.</p>   |
| 3. | <p>This report contains indications relating to the following items:</p> <p>I    <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II    <input type="checkbox"/> Priority</p> <p>III    <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV    <input type="checkbox"/> Lack of unity of invention</p> <p>V    <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI    <input type="checkbox"/> Certain documents cited</p> <p>VII    <input type="checkbox"/> Certain defects in the international application</p> <p>VIII    <input type="checkbox"/> Certain observations on the international application</p> |

|   |   |
|---|---|
| Date of submission of the demand<br><br><b>14.11.2003</b>   | Date of completion of this report<br><br><b>26.04.2005</b>  |
| Name and mailing address of the international preliminary examining authority:<br><br> European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465 | Authorized Officer<br><br><b>Schmidt, R</b><br><br>Telephone No. +49 89 2399-2491 <div style="text-align: right;">  </div> |

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/IL 03/00309**

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

|                               |             |  |
|-------------------------------|-------------|--|
| Novelty (N)                   | Yes: Claims |  |
|                               | No: Claims  | 1-<br>3,16,20,23-26,31,36,51,65,67,73-80,83-87,93,98,100,101 |
| Inventive step (IS)           | Yes: Claims |  |
|                               | No: Claims  | 1-102  |
| Industrial applicability (IA) | Yes: Claims | 1-102  |
|                               | No: Claims  |  |

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/IL 03/00309

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-43 as originally filed

**Claims, Numbers**

1-102 as originally filed

**Drawings, Sheets**

1/17-17/17 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

Re Item V.:

1 Reference is made to the following documents:

- D1: NONAKA H ET AL: "Ultrasonic position measurement and its applications to human interface" INSTRUMENTATION AND MEASUREMENT TECHNOLOGY CONFERENCE, 1994. IMTC/94. CONFERENCE PROCEEDINGS. 10TH ANNIVERSARY. ADVANCED TECHNOLOGIES IN I & M., 1994 IEEE HAMAMATSU, JAPAN 10-12 MAY 1994, NEW YORK, NY, USA, IEEE, 10 May 1994 (1994-05-10), pages 753-756, XP010121966 ISBN: 0-7803-1880-3
- D2: US-A-4 814 552 (STEFIK ET AL.) 21 March 1989 (1989-03-21)
- D3: WO 00/21203 A (COMSENSE TECHNOLOGIES LTD) 13 April 2000 (2000-04-13)
- D4: US-A-5 142 506 (EDWARDS) 25 August 1992 (1992-08-25)
- D5: EP-A-0 666 543 (INVIBRO TECHNOLOGIES LTD.) 9 August 1995 (1995-08-09)

2 Regarding the subject-matter of independent claim 1, document D1 discloses a position detection system for use in association with computing applications, the system comprises

- a positional element for attaining position and an emitter for emitting a continuous ultrasonic wave which is decodable to determine said position, and
- a detector arrangement for detecting said waveform and for determining said position, and which outputs said waveform for computation (cf. D1, whole document).

Hence, all the features of claim 1 are known from D1 and the subject-matter of claim 1 lacks novelty (Art. 33(2) PCT).

Independent method claim 73 is drafted in perfect analogy to claim 1 so that its subject-matter is not novel as well.

2.1 The subject-matter of independent claim 76 is essentially identical to the subject-matter 1 so that the same objection applies.

2.2 Regarding the vague expression "substantially continuous ultrasonic waveform" used

in claim 1, the following has to be noted. As it emerges from the description, the Applicant considers his invention to be different from solutions which employ ultrasonic bursts or sharp delta pulses to determine the position by means of time-of-flight measurements (cf. e.g. page 23, lines 6-8). An example of such an ultrasonic position input device being based on such a functioning principle is known from D2 (cf. abstract and figure). The device according to D2 sends out repeated burst of ultrasonic sound. Such bursts are certainly an ultrasonic waveform and since these bursts are continuously emitted they can also be considered to represent a "continuous ultrasonic waveform" and even more a "substantially continuous ultrasonic waveform".

With this interpretation of the expression "continuous ultrasonic waveform" in mind, document D2 is novelty destroying for the subject-matter of claim 1 as well.

- 3 Independent claim 98 is directed to a position detection system which employs two spaced apart emitters each for emitting a waveform which is received by a detector arrangement which permits the determination of an attitude of the positional element.

Corresponding subject-matter is completely disclosed in document D2 which employs an ultrasonic transducer as a first emitter and a LED as a second emitter (cf. abstract and figure).

Hence, the subject-matter of independent claim 98 is not novel as well.

- 4 The subject-matter of the dependent claims appears to be either known from the documents D1 or D2 as well or does not appear to add anything inventive in view of the remaining documents D3-D5 of the search report.